EO 33-003 Additional Cross Tube Lighting

Effectivity:

EC135 T1/P1 (CPDS), EC135 T2/P2 (CPDS), EC135 T2+/P2+, EC135 T3/P3 (CPDS)
EC135 T3H/P3H
with max. 100W LED Nose LDG Light installed

Description of modification:

This Engineering Order HeliAir EO 33-003 allows the installation of one or two additional lights on the FWD cross tube on all EC135 versions.

This change allows to establish fleet equality for T1/P1 to T3/P3 (CPDS) H/C and current T3H/P3H H/C regarding cross tube lighting. The installation with this EO is mechanically identical to the AHD (OEM) installation on the current T3H/P3H version.

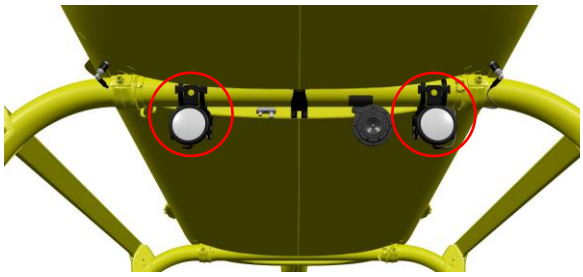


Fig. 1 – LED Fixed LDG Lights installation



Fig. 2 – LED Fixed LDG Lights

Two additional cross tube lights BE Aerospace Model 4303 with 55W power are attached to the LH and/or RH side of the FWD cross tube. The lights are manually adjustable (maintenance task) as follows:

- Horizontal adjustment: Front position: +30°/0°/-30°, Rear/RH position: +15°/0°(120°)/-15°, Rear/LH position: +15°/0°(-120°)/-15°
- Vertical adjustment: 0°to -115°

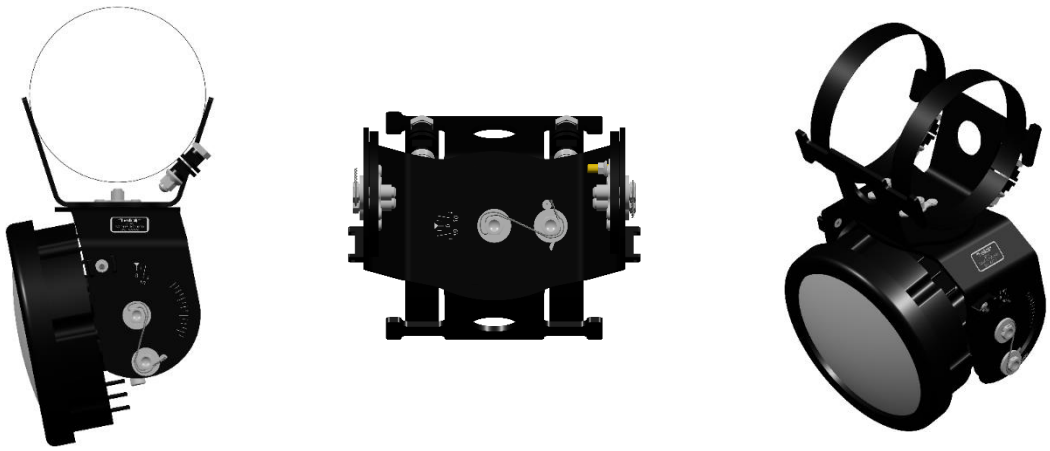
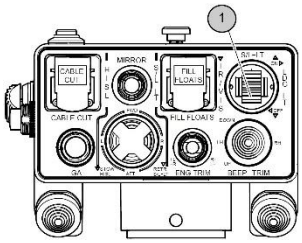


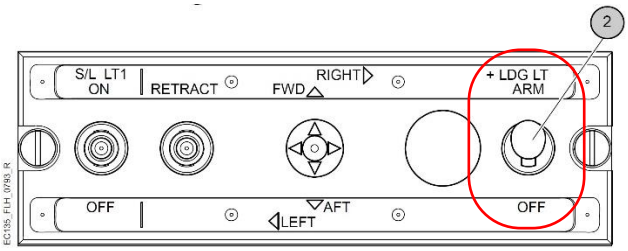
Fig. 3 – X-Tube Light Mounting Assy

Operation:

The operation of the LED Fixed LDG Lights differs between EC135 T3H/P3H (S/N 2001-9999) and EC135 T1/P1 (CPDS), T2/P2 (CPDS), T2+/P2+ and T3/P3 (CPDS) (S/N 0005-1999) H/C's.
The operation for EC135 T3H/P3H H/C's if installed with this retrofit is the same as if originally installed ex-factory by AHD. These H/C's are equipped with a Lighting Control Panel ex-factory. The LED Nose LDG Light and the LED Fixed LDG Lights on the Cross Tube can be switched independently depending on the switch position of the +LDG LT ARM Switch (2). They are activated via the S/L−LT/LDGLT/IR/VIS Switch (1) on the Collective Lever.

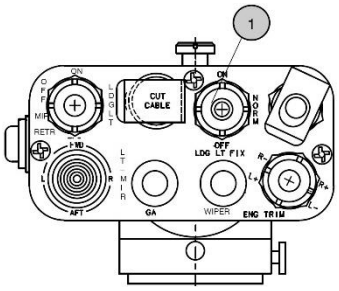
- +LDG LT ARM (OFF) (2) + LDG LT (ON) (1) → LED Nose LDG LT on only
- +LDG LT ARM (ON) (2) + LDG LT (ON) (1) → LED Nose LDG LT + LED Fixed LDG Lights Cross Tube on

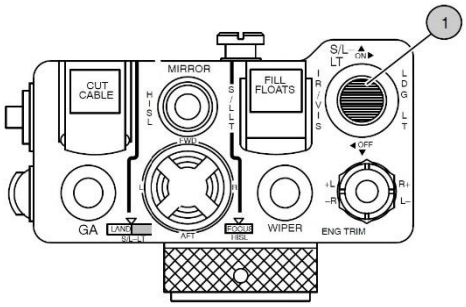




For EC135 (S/N 0005-1999) H/C's the LED Nose LDG Light and the LED Fixed LDG Lights on the Cross Tube are switched together because those H/C's are not equipped with a Lighting Control Panel. They are activated via the LDG LT FIX Switch resp. the S/L−LT/LDGLT/IR/VIS Switch on the Collective Lever.

- LDG LT FIX resp. S/L−LT/LDGLT/IR/VIS (ON) (1) → LED Nose LDG LT + LED Fixed LDG Lights Cross Tube on
- LDG LT FIX resp. S/L−LT/LDGLT/IR/VIS (OFF) (1)→ LED Nose LDG LT + LED Fixed LDG Lights Cross off





Additionally, for S/N 0005-1999 it is possible to install and optional switch to change the switching logic ARM (switched via the collective with the Fixed LDG LT), OFF (always off) and ON (on).



Installation Options:

- RH
- LH
- RH and LH
- S/N < 2000 or > 2000, with or without Landing Light Arm Switch

Ordering information:

Depending on the configuration and S/N of the helicopter, custom kits for the above-mentioned requirements are assembled. The installation effort depends heavily on the configuration and existing components.

For order placement, please contact our customer service department "csc@heliair.eu" or for technical questions contact our engineering department "engineering@heliair.eu".

Approval: EASA Minor Change 10084160